MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2019/2020

DBM5024 – BUSINESS FINANCE

(For Diploma Students Only)

21 OCTOBER 2019
2.30 p.m – 4.30 p.m
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 10 pages (excluding the cover page and formula appendix) with 2 sections.

2. For Section A, shade your answers on the OMR form provided.

3. For Section B, write your answers in the answer booklet provided.

4. The formulae are given in the appendices.

5. Answer ALL questions.

SECTION A: Multiple Choice Questions (30 Marks)

1. Senorita Incorparation is financed with 45 percent debt and 55 percent equity. This mixture of debt and equity is referred to as the firm's _____.

   A. capital structure
   B. capital budget
   C. asset allocation
   D. working capital

2. One advantage of the corporate form of organisation is the _____.

   A. taxation of the corporate profits
   B. unlimited liability for its shareholders
   C. double taxation of profits
   D. ability to raise larger sums of equity capital than other organisational forms

3. The primary goal of financial management is to maximise _____.

   A. current profits
   B. market share
   C. current dividends
   D. the market value of existing stock

4. The person generally directly responsible for overseeing the tax management, cost accounting, financial accounting, and information system functions is the _____.

   A. treasurer
   B. director
   C. controller
   D. chairman of the board

5. Which of the following are disadvantages of a partnership?

   I. limited life of the firm
   II. unlimited liability for firm debt
   III. greater ability to raise capital than a sole proprietorship
   IV. lack of ability to transfer partnership interest

   A. I and II only
   B. III and IV only
   C. II and III only
   D. I, II, and IV only

Continued...

6. Lester's BBQ has RM 121,000 in current assets and RM 109,000 in current liabilities. These values are referred to as the firm's _____.

   A. capital structure
   B. cash equivalents
   C. working capital
   D. net assets

7. Which one of the following situations is **MOST** appropriate to create an agency conflict?

   A. Rejecting a profitable project to protect employee jobs.
   B. Giving all employees a bonus if a certain level of efficiency is maintained.
   C. Hiring an independent consultant to study the operating efficiency of the firm.
   D. Compensating a manager based on his or her division's net income.

8. Syahmi is investing RM 5 today at 6 percent interest so he can have RM 10 later. The RM 10 is referred to as the _____.

   A. true value
   B. future value
   C. present value
   D. discounted value

9. Yeow Yu earned RM 180 in interest on her savings account last year. She has decided to leave the RM 180 in her account so that she can earn interest on the RM180 this year. The interest Yeow Yu earns this year on this RM180 is referred to as _____.

   A. simple interest
   B. complex interest
   C. accrued interest
   D. interest on interest

10. By definition, a bank that pays simple interest on a savings account will pay interest _____.

    A. only at the beginning of the investment period
    B. on interest
    C. only on the principal amount originally invested
    D. on both the principal amount and the reinvested interest

Continued...

11. You received RM 15,000 from your family as a reward. You will invest this money for 12 years at 6 percent simple interest. How much money will you have at the end of the 12 years?

A. RM 15,900
B. RM 16,000
C. RM 17,375
D. RM 25,800

12. Ng Cher Wei just deposited RM 13,000 into his account at CIMBee Bank. The bank will pay 1.3 percent interest, compounded annually, on this account. How much interest on interest will he earn over the next 15 years?

A. RM 238.16
B. RM 244.20
C. RM 360.70
D. RM 606.15

13. Hui San has just received an insurance settlement of RM 35,000. She wants to save this money until her daughter goes to college. If she can earn an average of 5.5 percent, compounded annually, how much will she have saved when her daughter enters college 10 years from now?

A. RM 48,000.00
B. RM 50,929.02
C. RM 51,374.89
D. RM 59,785.06

14. You want to have RM 25,000 for a down payment on a house 6 years from now. If you can earn 6.5 percent, compounded annually, on your savings, how much do you need to deposit today to reach your goal?

A. RM 17,133.35
B. RM 17,420.73
C. RM 17,880.69
D. RM 18,211.17

15. Which one of the following statements is **CORRECT**?

A. Bonds are generally called at par value.
B. A current list of all bondholders is maintained whenever a firm issues bearer bonds.
C. An indenture is a contract between a bond's issuer and its holders.
D. Collateralised bonds are called debentures.

Continued...

16. The R in the Fisher effect formula represents the _____.

A. nominal rate
B. real return
C. coupon rate
D. inflation rate

17. A bond has a RM 1,000 face value, a market price of RM 1,045, and pays interest payments of RM 80 every year. What is the coupon rate?

A. 6.76 percent.
B. 7.00 percent.
C. 8.00 percent.
D. 7.12 percent.

18. A RM 1,000 face value bond currently has a yield to maturity of 6.5 percent. The bond matures in three years and pays interest annually. The coupon rate is 7 percent. What is the current price of this bond?

A. RM 948.01
B. RM 949.60
C. RM 1,005.26
D. RM 1,013.24

19. The 8 percent, RM 1,000 face value bonds of Sweet Sue Foods are currently selling at RM 1,057. These bonds have 16 years left until maturity. What is the current yield?

A. 7.38 percent.
B. 7.57 percent.
C. 8.00 percent.
D. 8.23 percent.

20. Last year, you earned a rate of return of 12.37 percent on your bond investments. During that time, the inflation rate was 3.6 percent. What was your real rate of return?

A. 6.30 percent.
B. 7.60 percent.
C. 7.75 percent.
D. 8.47 percent.

Continued...

21. A bond yielded a real rate of return of 3.87 percent for a time period when the inflation rate was 3.75 percent. What was the actual nominal rate of return?

A. 87.58 percent.
B. 7.62 percent.
C. 7.77 percent.
D. 8.28 percent.

22. Johan Inc. has 6 percent coupon bonds on the market that have 11 years left to maturity. The bonds make annual payments. If the YTM on these bonds is 7.4 percent, what is the current bond price?

A. RM 895.88
B. RM 897.08
C. RM 903.14
D. RM 921.42

23. Nabila owns 100 shares of ABC stock. Which one of the following terms is used to refer to the return that Nabila and the other shareholders require on their investment in ABC?

A. Weighted average cost of capital
B. Pure play cost.
C. Cost of equity.
D. Cost of debt.

24. Jerry lent money to Home Store by purchasing bonds issued by the store. The rate of return that he and the other lenders require is referred to as the _____.

A. pure play cost
B. cost of debt
C. weighted average cost of capital
D. cost of equity

25. Which one of the following statements is **CORRECT** related to the dividend growth model approach to computing the cost of equity?

A. The rate of growth must exceed the required rate of return.
B. The rate of return must be adjusted for taxes.
C. The annual dividend used in the computation must be for year 1 if you are using today's stock price to compute the return.
D. The cost of equity is equal to the return on the stock plus the risk-free rate.

Continued...

26. Which of the following features are advantages of the dividend growth model?

I. Easy to understand
II. Easy to use
III. Constant dividend growth rate
IV. Model's applicability to all common stocks

A. II only
B. I and III only
C. II and IV only
D. I and II only

27. Farm Equipment Inc. announced this morning that its next annual dividend will be RM 1.80 a share and that future dividends will be decreased by 1.5 percent annually. What is the current value per share of this stock if the required return is 16.5 percent?

A. RM 8
B. RM 10
C. RM 12
D. RM 14

28. The Green Balloon just paid its first annual dividend of RM 0.12 a share. The firm plans to increase the dividend by 3.5 percent per year indefinitely. What is the firm's cost of equity if the current stock price is RM 6.50 a share?

A. 5.35 percent.
B. 5.41 percent.
C. 14.42 percent.
D. 18.79 percent.

29. The common stock of Doo Doo and Sons has a beta that is 25 percent larger than the overall market beta. Currently, the market risk premium is 9.5 percent while the risk-free rate is yielding 4.7 percent. What is the cost of equity for this firm?

A. 13.76 percent.
B. 14.96 percent.
C. 15.80 percent.
D 16.58 percent.

Continued...

30. The preferred stock of Water Pools pays an annual dividend of RM 5.55 a share and sells for RM 48 a share. The tax rate is 38 percent. What is the firm's cost of preferred stock?

A. 11.56 percent.
B. 14.88 percent.
C. 15.07 percent.
D. 15.59 percent.

(Total: 30 marks)

Continued...

SECTION B: Structured Questions (70 Marks)

QUESTION 1

As a financial executive, you are required to evaluate a project for Truly Three company. The Initial investment of this project is RM18,000 and the required return is 13 percent. The company is expected to receive cash flow from the project as below :

Year	Cash flow
1	RM9,000
2	RM11,000
3	RM15,000

Based on the above information, calculate:

(a) The payback period. (3 marks)
(b) The net present value (6.5 marks)
(c) The profitability index. (6.5 marks)
(d) Should Truly Three company accept the project? Why? (1.5 marks)

(Total : 17.5 marks)

QUESTION 2

(a) Vikneshwaran Berhad just paid a constant annual dividend of RM1.40 a share for the past 8 years. Recently, the firm announced that the dividend will increase next year by 7 percent each year for three years, thereafter the dividends will increase by 3.5 percent annually. The required return on this stock is 10 percent. What is the current value per share? (8.5 marks)

(b) Yesterday, Bryan purchased a stock that will pay an annual dividend of RM2.10 per share next year. He requires a 12.5 percent rate of return and the annual dividend will increase at 3.5 percent annually. Calculate his expected capital gain on this stock if he sells at year 5. (5 marks)

(c) Bubble Tea Berhad's stock is selling for RM32.60 per share based on a 9.5 percent rate of return. What is the amount of the next annual dividend if the dividends are increasing by 1.8 percent annually? (2 marks)

(d) Samuel Berhad pays a constant annual dividend of RM1.25 per share forever. How much are you willing to pay for one share if you require a 15 percent rate of return? (2 marks)

(Total : 17.5 marks)

Continued...

QUESTION 3

(a) Define stock splits and what is the impact to stock price (1.5 marks)
(b) Explain **FOUR** (4) types of dividend (8 marks)
(c) Explain process of dividend payment (8 marks)

(Total : 17.5 marks)

QUESTION 4

Below are the financial information obtained from Kaaching Berhad.

- Expected sales by month
  October : RM 50,000
  November : RM 65,000
  December : RM 95,000
- Beginning accounts receivable = RM 31,000
- Collections = Beginning Receivables + [1/4 x Sales]
- Credit Purchase = 65% of sales
- Wages, taxes, and other expenses = 25% of sales
- Major expansion planned in November costing fo RM 25,000

Based on the information provided above, construct Cash Budget for Kaaching Berhad, which includes:

(a) Cash Collection. (7.5 marks)
(b) Cash Disbursements. (5 marks)
(c) Net Cash Flow. (5 marks)

(Total : 17.5 marks)

(Total : 70 marks)

End of Paper

Appendices

I. The cash flow identity

Cash flow from assets = Cash flow to creditors (bondholders)
+ Cash flow to stockholders (owners)

II. Cash flow from assets

Cash flow from assets = Operating cash flow
− Net capital spending
− Change in net working capital (NWC)

where

Operating cash flow = Earnings before interest and taxes (EBIT)
+ Depreciation − Taxes

Net capital spending = Ending net fixed assets − Beginning net fixed assets
+ Depreciation

Change in NWC = Ending NWC − Beginning NWC

III. Cash flow to creditors (bondholders)

Cash flow to creditors = Interest paid − Net new borrowing

IV. Cash flow to stockholders (owners)

Cash flow to stockholders = Dividends paid − Net new equity raised

I. Symbols

PV = Present value, what future cash flows are worth today
FV_t = Future value, what cash flows are worth in the future
r = Interest rate, rate of return, or discount rate per period typically , but not always, one year
t = Number of periods typically , but not always, the number of years
C = Cash amount

II. Future value of *C* invested at *r* percent per period for *t* periods

$FV_t = C \times (1 + r)^t$

The term $(1 + r)^t$ is called the *future value factor.*

III. Present value of *C* to be received in *t* periods at *r* percent per period

$PV = C/(1 + r)^t$

The term $1/(1 + r)^t$ is called the *present value factor.*

IV. The basic present value equation giving the relationship between present and future value is

$PV = FV_t/(1 + r)^t$

I. Finding the value of a bond

Bond value = $C \times [1 - 1/(1 + r)^t]/r + F/(1 + r)^t$

where

C = Coupon paid each period
r = Rate per period
t = Number of periods
F = Bond's face value

II. Finding the yield on a bond

Given a bond value, coupon, time to maturity, and face value, it is possible to find the implicit discount rate, or yield to maturity, by trial and error only. To do this, try different discount rates in the formula above until the calculated bond value equals the given bond value. Remember that increasing the rate *decreases* the bond value.

I. The cost of equity, R_E

A. Dividend growth model approach (from Chapter 7):

$$R_E = D_1/P_0 + g$$

where D_1 is the expected dividend in one period, g is the dividend growth rate, and P_0 is the current stock price.

B. SML approach (from Chapter 11):

$$R_E = R_f + \beta_E \times (R_M - R_f)$$

where R_f is the risk-free rate, R_M is the expected return on the overall market, and β_E is the systematic risk of the equity.

II. The cost of debt, R_D

A. For a firm with publicly held debt, the cost of debt can be measured as the yield to maturity on the outstanding debt. The coupon rate is irrelevant. Yield to maturity is covered in Chapter 6.

B. If the firm has no publicly traded debt, then the cost of debt can be measured as the yield to maturity on similarly rated bonds (bond ratings are discussed in Chapter 6).

III. The weighted average cost of capital, WACC

A. The firm's WACC is the overall required return on the firm as a whole. It is the appropriate discount rate to use for cash flows similar in risk to the overall firm.

B. The WACC is calculated as:

$$\text{WACC} = (E/V) \times R_E + (D/V) \times R_D \times (1 - T_C)$$

where T_C is the corporate tax rate, E is the *market* value of the firm's equity, D is the *market* value of the firm's debt, and $V = E + D$. Note that E/V is the percentage of the firm's financing (in market value terms) that is equity, and D/V is the percentage that is debt.

I. **The general case**
In general, the price today of a share of stock, P_0, is the present value of all of its future dividends, $D_1, D_2, D_3, \ldots$:

$$P_0 = \frac{D_1}{(1+R)^1} + \frac{D_2}{(1+R)^2} + \frac{D_3}{(1+R)^3} + \cdots$$

where R is the required return.

II. **Constant growth case**
If the dividend is constant and equal to D, then the price can be written as:

$$P_0 = \frac{D}{R}$$

If the dividend grows at a steady rate, g, then the price can be written as:

$$P_0 = \frac{D_1}{R-g}$$

This result is called the *dividend growth model.*

III. **Nonconstant Growth**
If the dividend grows steadily after t periods, then the price can be written as:

$$P_0 = \frac{D_1}{(1+R)^1} + \frac{D_2}{(1+R)^2} + \cdots + \frac{D_t}{(1+R)^t} + \frac{P_t}{(1+R)^t}$$

where

$$P_t = \frac{D_t \times (1+g)}{(R-g)}$$

IV. **Valuation Using Multiples**
For stocks that don't pay dividends (or have erratic dividend growth rates), we can value them using the PE ratio and/or the price-sales ratio:

P_t = Benchmark PE ratio × EPS_t
P_t = Benchmark price-sales ratio × Sales per $share_t$

V. **The required return, R, can be written as the sum of two things:**

$$R = D_1/P_0 + g$$

where D_1/P_0 is the *dividend yield* and g is the *capital gains yield* (which is the same thing as the growth rate in dividends for the steady growth case).